

December 15, 2015

California Air Resources Board 1001 I Street P.O. Box 2815 Sacramento, CA 95812

Re: Comments on the Draft Technology Assessment: Mobile Cargo Handling Equipment

Dear Chairwoman Nichols and Members of the California Air Resources Board:

Thank you for this opportunity to comment on the draft Technology Assessment: Mobile Cargo Handling Equipment that is pending before the Air Resources Board ("ARB").

BYD is an international manufacturer of zero emission light-duty, medium-duty and heavy-duty vehicles. BYD has chosen to locate its North American headquarters in Los Angeles and its North American manufacturing facilities in Lancaster because California is the global leader in advancing a policy agenda that squarely addresses climate change and the dangers it poses for our future. BYD stands ready to do its part to make the emission reduction goals of the ARB and the Governor a reality.

BYD respectfully submits the following technical comments to the Draft Technology Assessment. For simplicity, the page or table numbers of the Draft Technology Assessment serve as headings and are followed by the suggested correction.

Technical Suggestions

II-6

The cost indicated for the Tier 4f diesel yard trucks of \$125,000 is high. It is our understanding that such vehicles are closer to the \$100k-110k range.

Table III-3

BYD is currently engaged in vehicle development that, if it is not already, should be included in the "Under Development" category for electric yard trucks. BYD also currently has vehicles that should be included under the "Commercially Available" category for forklifts.

IV-1 through IV-3

The draft technology assessment addresses the high capital costs of BEVs on III-10; however, it does not address how these capital costs may change in the future. For example, the chart at the top of III-15 demonstrates how lithium ion batteries will improve in energy density but fails to connect the density improvements to a reduction in price for BEVs. R&D advancements in lithium ion batteries and increased manufacturing scale will dramatically reduce the cost of BEVs in the coming years. That said, there are also actions ARB can take to accelerate such price reductions, the most obvious action being to create and fully fund mechanisms that boost manufacturing scale over the short term.

Pages II-1 through II-6 identifies relevant equipment and, for some of the equipment, identifies the port/general market size. BYD would recommend ARB include a table that shows the market size for each piece of equipment at the same scale (e.g. North America). The market for yard trucks far exceeds the market for reach stackers, top handlers, side picks, RTGs, etc. because these vehicles are used at rail yards and warehouses, in addition to ports, whereas the specialty equipment is generally port-specific or used in small numbers. Given this, BYD will be able to more quickly reach manufacturing scale with yard trucks – and as a result, the price will decrease and become more competitive with diesel over a faster period of time.

Conclusion

We are pleased to support ARB as it seeks to meet the state's GHG emission reduction goals and would be more than willing to meet with interested ARB Board Members to discuss our ideas in greater detail, or to answer any questions regarding our technical comments. Please do not hesitate to reach out to Mark Weideman at the Weideman Group (mark@weidemangroup.com) for more information.

Sincerely,

Stella Li President

BYD Motors, Inc.